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AUTHOR Johnson, William L.; And Others
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ABSTRACT

This report describes a diagnostic instrument designed for school districts to use in assessing the training needs of bilingual staff. The construction and trial administration of the instrument involved several stages. Among these were the development of a pool of subscaled questions, questionnaire forms, and a pool of instrument questions. The selection of bilingual personnel to respond to the scale and administration of the scale was followed by the development of computer scoring programs and classification procedures. Finally, reliability and validity assessments of the instrument were conducted. The data gathered from teachers' responses were scored and a need index for training was derived. The general areas covered by the survey are curriculum and instruction; evaluation techniques; human skills; staff organization; language, linguistics, and content; and culture. The inservice planning survey is included in the report. (DWH)

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A QUANTITATIVE STUDY ON THE TRAINING NEEDS IN PRE- AND IN-SERVICE BILINGUAL EDUCATION

By

WILLIAM L. JOHNSON
Chairman of Mathematics Department
Ambassador College
Big Sandy, Texas 75755

BILLY E. ASKINS
Associate Dean of College of Education
Texas Tech University
Lubbock, Texas 79409

LESLIE HULING AUSTIN
Senior Research Associate at the
Research & Development Center for
Teacher Education
The University of Texas
Austin, Texas 78712

TM 840302

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A QUANTITATIVE STUDY ON THE TRAINING NEEDS IN PRE- AND IN-SERVICE BILINGUAL EDUCATION

by

William L. Johnson
Billy E. Askins
Leslie Huling Austin

Introduction and Survey of Literature

The role of a teacher is complex and demanding. If teachers are to be effective, they are entitled to and can benefit from a quality teacher education program that begins with pre-service education and continues through induction (the first years of teaching) and in-service. The same is true for the bilingual teacher who has all of the duties of the regular teacher plus some very specialized additional responsibilities. The bilingual teacher must not only be a strong educator, but must also be: 1) specially trained in instructing children with limited-English-proficiency, 2) bilingual, and 3) bicultural. With all of the additional demands placed on the bilingual teacher, the need for a strong teacher education program tailored to the specific needs of the teacher becomes crucial.

The purpose of this paper is to describe a bilingual diagnostic instrument designed for school districts to use in assessing the training needs of their bilingual staff and to report what bilingual personnel in a New Mexico school district and school districts served by the Texas Region 17 Service Center indicate to be their current in-service needs. However, before doing this, it is helpful to consider the current status of bilingual teacher education

and to examine the content and goals of the existing teacher education program for preparing and assisting bilingual teachers.

Current Status of Bilingual Teacher Education

Our society and our world are not becoming more homogeneous. If anything, both are more linguistically and culturally pluralistic now than ever before (Washburn, 1982). As a result of this situation, both the need for and the presence of bilingual education programs continue to increase. In a recent national survey about bilingual education, 47 states reported that they provide some form of bilingual education in at least one school district. Eighteen states reported that they have certification requirements for bilingual education teachers, while 33 reported that they had none. Three states reported that certified bilingual education teachers were paid an additional salary increment; 43 said that they had no such provision. Thirty-six state departments of education indicated that institutions of higher education in their states offered teacher training programs in bilingual education (Nickel, 1982).

According to another source (Washburn, 1982) bilingual/bicultural programs are offered by institutions in 33 states, the District of Columbia, Guam and the Virgin Islands. California has 59 schools with such programs; Texas is next with 24, followed by New York (22), Illinois (14) and Pennsylvania(11). A total of 226 bilingual/bicultural programs were identified, serving a total of 43,378 students. The average program is seven years old and serves 228 students.

In spite of what on the surface may appear to be a great deal

of activity, there still exists a serious shortage of qualified bilingual teachers. In fact, according to a recent U.S. Department of Education report, education schools annually graduate only 1,900 teachers qualified to instruct limited- English-proficient students, even though there is documented unmet demand for as many as 55,000 such teachers (Forum, 1983). In a national survey of the 50 state departments of education regarding bilingual education, only two states reported that the supply of bilingual education teachers was adequate; 40 described the supply as inadequate (Nickle, 1982).

Numerous school districts face critical shortages in their bilingual teaching staffs. For example, the Dallas ISD reports a current shortage of 300 qualified bilingual teachers, while Los Angeles has openings for up to 1,000 bilingual education teachers. Many districts which are facing shortages are undertaking elaborate measures to recruit and maintain competent bilingual teachers. One example of this is the Houston Independent School District which faced the problem of a 45 percent turnover rate among bilingual teachers (Walker de Felex, 1981). The district worked out a program with the University of Houston. The teachers received training leading to a master's degree with emphasis in bilingual education and the district pays tuition, fees and books. In return, the teachers agree to teach bilingual classes in the district for two years following completion of their degrees. In addition, district teachers retraining in bilingual education qualify for additional salary supplement through the Second Mile Plan, a program to compensate teachers for working in areas where extra effort is required.

Program Content in Bilingual Teacher Education

From a survey of the current literature, there appears to be consensus that a quality bilingual teacher education program needs to address three areas: 1) preparation in education and teaching, 2) the development of bilingualism in teachers and training in special techniques in teaching children with limited English proficiency, and 3) the development of a sense biculturalism and an appreciation for cultural diversity.

The goals of bilingual teacher education are quite ambitious and it is quite a challenge to balance the three areas of need in designing a comprehensive program for bilingual teachers. From the 226 bilingual/bicultural programs identified by Washburn (1982) in a survey of 3,038 postsecondary institutions in the nation, a total of 4,297 courses were reported that focus on 42 ethnic groups. Forty different languages are taught. In addition, 184 of the schools (81.4%) offer a total of 1,210 general or theoretical courses that provide conceptual orientations to bilingual/bicultural education, and 180 schools (79.7%) offer a total of 864 courses dealing with methods or materials for bilingual/bicultural education. For practical experience, 142 schools (62.8%) offer student teaching, 138 (61.1%) offer practicums, and 88 (38.9%) offer internships in bilingual settings. The overwhelming majority of the bilingual/bicultural programs (80.1%) focus on the Spanish language. The study of Hispanic cultures also predominates. Of the 209 schools that offer courses on the experiences of specific groups in the United States, 116 (55.5%) offer a total of 1,126 courses (26.8% of all such courses offered) on Mexican Americans.

Identification of the numbers and types of courses that comprise bilingual/bicultural programs is informative, but the key issue remains to be what is the content that is being taught in this wide array of course offerings. It is difficult to get a clear sense of this content from the literature, but a few sources do offer insight into what they believe to be the goals of teacher education programs for bilingual teachers.

Casso and Gonzalez (1974) write that bilingual teachers should:

> believe that cultural diversity is a worthy goal; respect individual children and the culture they take to school; be assured that the culture children take to school is worth preserving and enriching; be aware that cultural and linguistic differences are obvious individual differences; be committed to promoting children's self image; develop a positive self-concept of the individual's capacity to contribute to a bilingual/bicultural program; be willing to learn more about bilingual/bicultural education; have flexibility in human relations, possess the ability to share ideas; and inspire a confidence in children and their capacity.

Anderson (1982) focuses on the bicultural aspects of training teachers to be bilingual/bicultural and lists a summary of the qualities involved:

1) Having an "understanding" of the other culture, i.e., possession of factual information about the second culture.
2) The possession of "empathy" for the second culture.
3) Having an experience working within a second cultural setting.
4) Displaying a positive attitude of acceptance, respect and appreciation for the other culture.
5) A conviction and/or recognition as to the legitimacy of the second culture.

6) Having the skill to be a "cross-cultural" interpreter, one who will minimize the inevitable conflicts between a dominant and a subordinate culture.

7) Possession of mastery of special methodologies based upon the unique learning styles of the students of the other culture.

Saracho (1983) generates an additional list of competencies bilingual teachers should possess. He writes that teachers working with bilingual/bicultural children should:

1) Know enough of the child's language to carry on a simple conversation.

2) Know and understand the bilingual/bicultural child's culture and preferably, have experienced cultural immersion.

3) Understand the development of the child's self-concept.

4) Know how to plan effectively, considering individual differences including language and cultural features.

5) Have a commitment and dedication to bilingual/bicultural children, guiding them to achieve their maximum potential.

The shear numbers of qualities and competencies bilingual/bicultural teachers should possess is overwhelming, especially when one begins the task of identifying the training needs of teachers involved. One such attempt at identifying these training needs was the development of the questionnaire described in the following section. This questionnaire focuses on the in-service needs of teachers in six general areas: curriculum and instruction; evaluation techniques; human skills; staff organization; language, linguistics and content; and culture. These six areas were chosen because they span a wide array of competencies required of the

effective bilingual/bicultural teacher.

The In-service Planning Survey

When we began the task of identifying the training needs of the bilingual personnel, we designed a bilingual diagnostic instrument for school district officials to use in identifying the specific training needs of their bilingual teachers. The remainder of this paper describes the nature of designing that instrument, as well as our findings about bilingual teachers' training needs in the areas just mentioned.

The construction and administration of the instrument involved the following steps: (a) development of a pool of subscaled questions; (b) development of questionnaire forms and a pool of instrument questions; (c) selection of bilingual personnel to respond to the scale; (d) administration of the scale; (e) development of computer programs for instrument scoring and classification procedures; and (f) reliability and validity assessments of the instrument.

Development of Initial Pool of Items

The instrument questions were written using the standard domain sampling model supported by Nunnally (1967) and Cronbach (1970). Initial questions addressing the six areas were written. These questions were scrutinized and studied. Next the pool of items was expanded. Finally the questions were rewritten and revised. These final revisions produced the pool of items contained in the bilingual instrument.

Next a questionnaire form was developed for the pool of items.

A Likert format was employed as the response mode for all questions. Lemon (1973) has stated that much of the experimental research pertaining to attitude change involves measuring attitudes by some simple, easily administered instrument, usually a rating-scale format, and then attributing changes or differences in the ratings to the experimental manipulations.

In this context, the Likert scale of summative ratings is the most widely used attitude measure in current research. Gronlund (1976) stated that Likert's approach to attitude scaling was less time consuming in development than earlier methods such as Thurston's and Remmers'. Borg and Gall (1971) identified the Likert technique as the easiest method presently available for developing scales needed in attitude research.

McGinnies (1970) clarified the procedures involved in constructing a Likert scale. The first step involves the writing of a number of statements dealing with the topic under investigation. Respondents then indicate their reaction to each question on an interval scale.

Severy (1973) added that it is assumed all written questions reflect the same attitudinal dimensions when a Likert scale is developed. Advantages of the Likert scale are: (1) that construction is less time consuming and easier than other scaling techniques, and (2) that fewer items are required to obtain higher correlation coefficients (Ahmann & Glock, 1975; Borg & Gall, 1974; Gronlund, 1976, Lemon, 1973; Shaw & Wright, 1967).

Shaw and Wright (1976) indicated that items should be written in simple and clear language, should contain a single idea, and

should be unambiguous. Borg and Gall (1974) noted that an instrument dealing with attitudes would generally be constructed as an attitude scale and should include at least ten items to obtain a valid picture of the attitude concerned. Tittle and Hill (1967) investigated the predictive efficiency of four frequently used attitude measurement techniques in terms of predicting indices of voter behavior. The Thurston, Guttman, Likert, and semantic differential scales were compared. In Tittle's and Hill's study, the Likert scale was superior to all other scales in predictive validity. Their evidence suggested that in cases where the Likert and Thurston scales were of equal length, the Likert scale exhibited higher reliability.

A Likert discrepancy model was chosen because of its applicability in general or first-time assessment trials (Witkin, 1977). Discrepancy as defined by Tyler (1949) is understood to mean a difference between some standard of value and an actual status. Sarthory (1977) has defined a need as a quantifiable gap in attitude, achievement, or performance between the ideal and the real.

Kaufman (1972) and Southard (1974) have identified the four specific components in a discrepancy needs assessment procedure: (1) determine desired conditions, (2) determine existing conditions, (3) analyze discrepancies between the actual and desired conditions, and (4) assign priorities to the discrepancies. These discrepancies constitute indices of need.

Pertaining to the discrepancy format, respondents rate specific statements on two five-point quasi-Likert scales: (a) perception of the degree to which the situation actually exists (A) and

(b) perception of the extent to which the situation is desired to exist (D). The discrepancy between the two scale values, for a specific question, is referred to as the need index.

The discrepancy format response mode included the following two column response categories: (a) competence (consisting of the following scale): (1) no knowledge of; (2) knowledge of: (3) work with; (4) extensive work with; (5) expertise in; and (b) training (consisting of the following scale): (1) desire no training, skill unrelated; (2) desire no training, competency high; (3) desire awareness session; (4) desire training; and (5) desire further training. The competency column is the actual status while the training column is the desired status. Jenkins and Taber (1977) found in an agree/disagree context that the number of response categories above five did not, in any situation, yield a significant increase in Likert discriminability.

In recent years a great deal of research has been done to establish the fact that response sets exist in questionnaire responses (Bendig, 1962; Hand, 1964; Hand & Brazzell, 1965; Rosenwald, 1961; Ruebush, 1963). Kerlinger (1973) has added, however, that he believes response sets are only a mild threat to valid measurement, and that their importance has been overestimated. The available evidence he asserts does not justify the strong negative assertions made by response-set enthusiasts. Because of this, we did not randomly assign questions to the instrument. However, subscales were in no way identified in the survey instrument itself.

Furthermore, the questions were all worded in a positive sense without reversing question polarity. It was our intent

to limit the length and complexity of the instrument so that 90% of the participants could complete the survey in less than 30 minutes (Cronbach, 1970).

Development of the Instrument Form

An introductory paragraph in the questionnaire explained the purpose of the instrument distribution. Immediately following were directions and definitions pertaining to the completion of the scale and meanings of the terms used.

Selection of Respondents and Scoring Procedures

All the respondents were bilingual personnel. School districts included both a New Mexico school district and school districts served by the Texas Region 17 Service Center. The total sample size was n=200. This number was arrived at by having at least five times as many participants as instrument questions (Lemke & Wiersma, 1976; Nunnally, 1970).

The questionnaire was scored by calculating a correlated t test score as the need index. The literature of statistical procedures is replete with descriptions of and derivations for this procedure (Hicks, 1973; Hinkle & Wiersma, 1979; Kerlinger, 1973; Kirk, 1968).

Analysis of the Instrument Itself

As an a posteriori procedure, construct validity was examined through a factor analysis of the diagnostic instrument (Spanier, 1976). The construct validity of a test is the extent to which the test may be said to measure a theoretical construct or trait (Anastasi, 1976). Essential to the notion of construct validity

is the internal consistency of the items (Nunnally, 1967). Of particular relevance to construct validity is factor analysis. Lemke and Wiersma (1976) have stated that factor analysis is in fact a method for establishing construct validity. Essentially, factor analysis is the refined technique for analyzing the interrelationships of behavioral data, simplifying the description of data by reducing the number of necessary variables or dimensions (Anastasi, 1976; Kim & Mueller, 1978). The factoring method used was PA2 (principal factoring using iteration) with the varimax criterion specified as the method of orthogonal rotation (Nie, Hull, Jenkins, Steinbrenner, & Brent, 1975). Three present status scales (PRE) and three desired status scales (DES) emerged. The PRE and DES factors were paired and common questions were extracted. This procedure reduced the common factors to two.

We found that curriculum and instruction, human skills, and staff organization were subsumed under one factor. Evaluation techniques, culture, and language, linguistics and content were subsumed under a second factor. The correlation of the two factors was 0.352. Higher order factoring was not performed. If one is interested in alpha reliability measures, please contact the authors.

Next there is the question of a metric base for the variables. Stevens (1946) wrote that factor analysis requires that the variables be measured on at least an interval level. This requirement is implied by the use of correlation or covariance matrices as the basic input to factor analysis. If it were argued that the scaling used was not absolutely of a metric base, would a researcher always avoid factor analysis? Kim and Mueller (1978) have written that

such is not necessarily so. Many variables, such as measures of attitudes and opinions, do not have a clearly established metric base. Furthermore, it is generally assumed that many ordinal variables may be given numeric values without distorting the underlying properties. The final answer to the question of applying multivariate analysis to a nonmetric variable base really hinges on two considerations: (1) how well the arbitrarily assigned numbers reflect the underlying true distances, and (2) the amount of distortion introduced in the correlation procedures (which become the basic input to factor analysis) by the distortions in the scaling. Fortunately, the correlation coefficients are fairly robust with respect to ordinal distortions in measurement (Kim, 1975; Labovitz, 1967, 1970). Hence, as long as one can assume that the distortions introduced by assigning numeric values to ordinal categories are not very substantial, treating ordinal variables as if they are metric variables can be justified (Kim & Mueller, 1978). The scale descriptors were written to reflect as near a metric base as possible. It was felt the distortions would be minimal and the application of factor analysis to the data would be consistent with factor analytic models. With the inclusion of an introductory page explaining the purpose of the instrument distribution and giving directions and definitions pertaining to the completion of the survey instrument, the instrument form was completed (see Appendix A for this sample scale).

Findings of the Study

Two hundred participants responded to the instrument. The bilingual personnel rated the 40 specific questions on two five-

point quasi-Likert scales: (a) Competence (consisting of the following scale): (1) no knowledge of; (2) knowledge of; (3) worked with; (4) extensive work with; (5) expertise in; and (b) Training (consisting of the following scale): (1) desire no training, skill unrelated; (2) desire no training, competency high; (3) desire awareness session; (4) desire training; and (5) desire further training. The competency column is the "actual status" while the training column is the "desired status".

When the data were compiled, tabulations of the teachers responses were computer scored, utilizing a correlated t-test. The means of where the participants were on each specific question were compared to where they desired to be, and then divided by the standard deviation of each of the groups. This process established a need index based on the number of standard deviations from the present competency (where the participant presently is) to the desired training (where the participant wishes to be). The greater the index, the greater the need for training. A negatively signed index indicates no need for training.

The questions, or items, on the instrument pertain to one of the six general areas which were:

1. Curriculum and Instruction
2. Evaluation Techniques
3. Human Skills
4. Staff Organization
5. Language, Linguistics, and Content
6. Culture

When all data (n=200) were rank ordered according to correlated

t-test results, the ranking of the six general areas of perceived need for training were as follows:

RANK	QUESTION NUMBERS ON INSTRUMENT	AREA	t VALUE	2-TAIL PROBABILITY
1	11-19	Evaluation Techniques	6.83	0.000
2	31-38	Language, Linguistics & Content	6.75	0.000
3	1-10	Curriculum & Instruction	6.57	0.000
4	39-40*	Culture	4.77	0.000
5	27-30	Staff Organization	3.51	0.001
6	20-26	Human Skills	1.33	0.186

The correlated t-test value for each question on the instrument is reported in Appendix B. Following is a summary per se.

Question ten, "demonstrates ability to adapt instruction for the gifted and talented," had the highest t index in the study. Next was question 15 which pertained to diagnosing learning problems and prescribing instruction. Third in need was question 33 which pertained to the acquisition of two language systems. This was followed by question 26 which referred to involving parents in the instructional program. Fifth in need was "demonstrates proficiency in linguistic structures of Spanish and English languages." Concern about the instructional program clearly emerged in this pool of individual questions.

Overall (1) evaluation techniques, (2) language, linguistics and context, and (3) curriculum and instruction were ranked very closely as priority training-need areas. The findings of our study reinforce our own observations that bilingual personnel need

* From a research perspective, this area would be disregarded because of the small number of items.

and desire pre- and in-service bilingual training. In addition to the tasks of evaluation and teaching language, they are expressing a desire for training in the areas of curriculum and instruction, culture, and staff organization. These findings are of educational value in that they help target bilingual training needs for the 1980's.

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APPENDIX A
INSERVICE PLANNING SURVEY

INTRODUCTION

The purpose of this questionnaire is to obtain pertinent information pertaining to your knowledge and desire for training concerning your school for next year. The questionnaire contains a list of selectively-designed questions pertaining to various commonly identified skills and abilities.

Directions

1. On the following pages, read the first statement describing a skill and indicate your extent of competency by circling a number in the left-hand column marked Competence. The following definitions may be used to guide your responses:

   No Knowledge Of -- Your knowledge of the practice or procedure extends to no more than a simple definition.

   Knowledge Of -- Your knowledge extends beyond definition; for example, you have read articles in the area or have discussed the implications of the practice or procedure.

   Worked With -- You have utilized the practice or procedure in your role.

   Extensive Work With -- You have utilized the practice or procedure (even modified it in circumstances) repeatedly in your teacher role.

   Expertise In -- You have experience in the practice or procedure in diverse situations; because of your experience or training you are able to serve as a consultant, conduct a workshop, or lead a task group in the area.

2. Then determine your extent of interest or desire for training by circling a number in the right-hand column marked Training. The following definitions may be used to guide your responses:

   Desire No Training, Skill Unrelated -- You do not desire training in the practice or procedure because you feel the skill is unrelated to your school task/assignment.

   Desire No Training, Competency High -- You do not desire training in the practice or procedure because you feel your degree of competency is high.

   Desire Awareness Session -- You are unfamiliar with the practice or process and would prefer a short overview to acquaint yourself.

   Desire Training -- You are familiar with the practice or process or your knowledge is only cursory; you would prefer training to begin at the introductory level.

   Desire Further Training -- You are familiar with the practice or process, have had some training (or are currently undergoing training) and desire more training; you would prefer training to begin at an intermediate or advanced level.

3. Repeat the procedure stated above for all the statements on the survey questionnaire. Thank you again for your help in this very important matter.

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COMPETENCE							TRAINING				
No Knowledge Of	Knowledge Of	Worked With	Extensive Work With	Expertise In	Question	Statement of Skill	Desire No Training Skill Unrelated	Desire No Training Competency High	Desire Awareness Session	Desire Training	Desire Further Training
1	2	3	4	5	1.	Demonstrates skill in adapting instruction for the disadvantaged child.	1	2	3	4	5
1	2	3	4	5	2.	Demonstrates ability to incorporate discovery methods and open-ended instruction.	1	2	3	4	5
							1	2	3	4	5
1	2	3	4	5	3.	Demonstrates knowledge about role playing simulations, and/or instructional games.	1	2	3	4	5
1	2	3	4	5	4.	Demonstrates the use of questioning techniques.	1	2	3	4	5
1	2	3	4	5	5.	Demonstrates ability to provide for students' different styles or methods of learning most effectively.	1	2	3	4	5
1	2	3	4	5	6.	Demonstrates knowledge of methods for individualized instruction.	1	2	3	4	5
1	2	3	4	5	7.	Demonstrates skill in dealing with behavioral problems.	1	2	3	4	5
1	2	3	4	5	8.	Demonstrates the ability to utilize methods to diagnose reading levels of students and conduct appropriate instruction in reading for first and second languages.	1	2	3	4	5
1	2	3	4	5	9.	Demonstrates ability to use materials for instruction in bilingual education.	1	2	3	4	5

COMPETENCE							TRAINING				
No Knowledge Of	Knowledge Of	Worked With	Extensive Work With	Expertise In	Question	Statement of Skill	Desire No Training Skill Unrelated	Desire No Training Competency High	Desire Awareness Session	Desire Training	Desire Further Training
1	2	3	4	5	10.	Demonstrates ability to adapt instruction for the gifted and talented.	1	2	3	4	5
1	2	3	4	5	11.	Demonstrates knowledge of the rationale for identification of students with Limited Speaking Proficiency (LSP).	1	2	3	4	5
1	2	3	4	5	12.	Demonstrates ability to use effective management techniques for optimal learning in various types of situations.	1	2	3	4	5
1	2	3	4	5	13.	Demonstrates ability to teach children who have limited speaking or writing skills in the English language.	1	2	3	4	5
1	2	3	4	5	14.	Demonstrates ability to effectively deal with students who have language deficiencies.	1	2	3	4	5
1	2	3	4	5	15.	Demonstrates ability to diagnose learning problems and prescribe instruction.	1	2	3	4	5
1	2	3	4	5	16.	Demonstrates oral and written proficiency in Spanish language development.	1	2	3	4	5
1	2	3	4	5	17.	Demonstrates ability to provide feedback about student progress to students and parents.	1	2	3	4	5
1	2	3	4	5	18.	Demonstrates ability to interpret test results.	1	2	3	4	5

COMPETENCY							TRAINING				
No Knowledge Of	Knowledge Of	Worked With	Extensive Work With	Expertise In	Question	Statement of Skill	Desire No Training Skill Unrelated	Desire No Training Competency High	Desire Awareness Session	Desire Training	Desire Further Training
1	2	3	4	5	19.	Demonstrates sufficient knowledge to implement federal, state, and local bilingual education into an on-going program.	1	2	3	4	5
1	2	3	4	5	20.	Demonstrates ability to stimulate creativity.	1	2	3	4	5
1	2	3	4	5	21.	Demonstrates ability to establish rapport with students.	1	2	3	4	5
1	2	3	4	5	22.	Demonstrates knowledge of methods to develop student self-concept.	1	2	3	4	5
1	2	3	4	5	23.	Demonstrates ability to foresee and/or intervene in a crisis.	1	2	3	4	5
1	2	3	4	5	24.	Demonstrates knowledge of how to reinforce learning.	1	2	3	4	5
1	2	3	4	5	25.	Demonstrates ability to counsel students.	1	2	3	4	5
1	2	3	4	5	26.	Demonstrates skill in involving parents in the instructional program.	1	2	3	4	5
1	2	3	4	5	27.	Demonstrates knowledge of how to develop team planning.	1	2	3	4	5
1	2	3	4	5	28.	Demonstrates skill in the use of teacher aids.	1	2	3	4	5
1	2	3	4	5	29.	Demonstrates ability to prepare and assist children to successfully interact in the local cross-cultural setting.	1	2	3	4	5

COMPETENCE							TRAINING				
No Knowledge Of	Knowledge Of	Worked With	Extensive Work With	Expertise In	Question	Statement of Skill	Desire No Training Skill Unrelated	Desire No Training Competency High	Desire Awareness Session	Desire Training	Desire Further Training
1	2	3	4	5	30.	Demonstrates ability to critique and improve teaching patterns.	1	2	3	4	5
1	2	3	4	5	31.	Demonstrates proficiency in linguistic structures of Spanish and English languages.	1	2	3	4	5
1	2	3	4	5	32.	Demonstrates the ability to identify the similarities and differences between the two language systems (English and Spanish).	1	2	3	4	5
1	2	3	4	5	33.	Demonstrates skill in identifying probable interferences and possible reinforcements in the acquisition of two language systems.	1	2	3	4	5
1	2	3	4	5	34.	Demonstrates skill in assessing language development of students.	1	2	3	4	5
1	2	3	4	5	35.	Demonstrates skill in teaching the language arts in the universally accepted form of the native language.	1	2	3	4	5
1	2	3	4	5	36.	Demonstrates the ability to design and implement instructional strategies to develop the students' communication skills: listening, speaking, reading, writing.	1	2	3	4	5
1	2	3	4	5	37.	Demonstrates knowledge and skill in communicating concepts from mathematics.	1	2	3	4	5

COMPETENCY							TRAINING				
No Knowledge Of	Knowledge Of	Worked With	Extensive Work With	Expertise In	Question	Statement of Skill	Desire No Training Skill Unrelated	Desire No Training Competency High	Desire Awareness Session	Desire Training	Desire Further Training
1	2	3	4	5	38.	Demonstrates knowledge and skill in communicating concepts from social studies.	1	2	3	4	5
1	2	3	4	5	39.	Demonstrates knowledge of the theory and concept of culture.	1	2	3	4	5
1	2	3	4	5	40.	Demonstrates knowledge of similarities and differences between two cultures.	1	2	3	4	5

Do you desire to develop and participate in a training program which would result in professional development in the following areas?

	(check one)	Yes	No
41.	Personality Development	____	____
42.	Human Relation Skills	____	____
43.	Human Development	____	____

Only Aides Complete Items 44-47

Indicate "Yes" or "No" by the following areas which you think you need additional training.

		Yes	No
44.	Improving ability to present instructional materials in Spanish.	____	____
45.	Improving ability to interpret the school's program to parents and students whose language is not English.	____	____
46.	Improving ability to assist teachers in various types of class drill and identifying student learning problems.	____	____

		Yes	No
47.	Improving ability to correctly operate various types of media equipment such as projectors, tape recorders, VTR, and duplicating equipment.	____	____

List any other areas you desire:

Comments or Additions

Teachers and aids are encouraged to add any other areas of training they feel a need or desire.

APPENDIX B

CORRELATED t TEST VALUES FOR ALL QUESTIONS ON THE PRE- AND IN-SERVICE PLANNING SURVEY

QUESTION	t VALUE	2-TAIL PROBABILITY
1	4.03	0.000
2	6.90	0.000
3	2.77	0.006
4	1.64	0.102
5	2.49	0.014
6	3.64	0.000
7	2.71	0.007
8	5.43	0.000
9	5.31	0.000
10	12.51	0.000
11	6.21	0.000
12	5.87	0.000
13	3.47	0.001
14	4.94	0.000
15	8.94	0.000
16	5.80	0.000
17	0.84	0.402
18	2.14	0.033
19	6.50	0.000
20	2.65	0.009
21	5.34	0.000
22	0.64	0.525
23	1.24	0.216
24	0.63	0.531
25	2.19	0.030
26	7.72	0.000
27	4.76	0.000
28	2.05	0.042
29	3.08	0.002
30	5.48	0.000
31	7.50	0.000
32	5.53	0.000
33	8.19	0.000
34	6.00	0.000
35	6.99	0.000
36	3.46	0.001
37	1.88	0.062
38	3.89	0.000
39	5.39	0.000
40	3.74	0.000